

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: DONALD A. KERTH ET AL.

Filed: JULY 22, 2003

For: APPARATUS AND METHODS FOR REDUCING INTERFERENCE IN
RADIO-FREQUENCY APPARATUS

Serial No.: 10/624,456

Group Art Unit: 2681

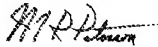
Examiner: NGUYEN, LEE

Attorney Docket: SILA:122

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Date: September 5, 2006

Name:



Commissioner for Patents
P.O. Box 1450
Alexandria 22313-1450

AMENDMENT AND RESPONSE TO OFFICE ACTION

Dear Sir:

This paper is submitted in response to the Office Action dated May 4, 2006 ("Office Action"). Concurrently with this paper, the Applicant files a request for a one-month extension of time.

AMENDMENT

Please amend the application as specified below:

In the Claims:

Please add new claims 5-20, as specified below. The current status and text of the claims follows:

1. (original) A converter in a radio-frequency (RF) apparatus, the converter comprising a feedback circuitry having a shielded input and a shielded output, wherein the shielded input and the shielded output tend to reduce interference in the converter.
2. (original) The converter according to claim 1, further comprising:
a first filter coupled to the shielded input of the feedback circuitry; and
a second filter coupled to the shielded output of the feedback circuitry.
3. (original) A method of reducing interference in a non-linear circuit in a radio-frequency (RF) apparatus, wherein the non-linear circuit has an input and an output, the method comprising:
shielding an input of the non-linear circuit; and
shielding an output of the non-linear circuit.
4. (original) The method according to claim 3, further comprising filtering an input signal supplied to the input of the non-linear circuit.
5. (new) A radio-frequency (RF) apparatus, comprising:
a non-linear signal-processing circuit;
a first shield that shields an input of the non-linear signal-processing circuit; and
a second shield that shields an output of the non-linear signal-processing circuit.
6. (new) The apparatus according to claim 5, wherein the non-linear signal-processing circuit comprises switched-capacitor circuitry.
7. (new) The apparatus according to claim 5, wherein the non-linear signal-processing circuit comprises noise-shaping converter circuitry.
8. (new) The apparatus according to claim 5, wherein the non-linear signal-processing circuit comprises analog-to-digital converter circuitry.

9. (new) The apparatus according to claim 5, wherein the non-linear signal-processing circuit comprises digital-to-analog converter circuitry.
10. (new) The apparatus according to claim 5, wherein the non-linear signal-processing circuit comprises multiplier circuitry.
11. (new) The apparatus according to claim 5, wherein the non-linear signal-processing circuit comprises modulator circuitry.
12. (new) The apparatus according to claim 5, further comprising:
a first filter that filters an input signal of the non-linear signal-processing circuit; and
a second filter that filters an output signal of the non-linear signal-processing circuit.
13. (new) The apparatus according to claim 5, wherein the first shield comprises a conduit, and wherein the second shield comprises a conduit.
14. (new) The apparatus according to claim 5, wherein the first shield comprises a ground plane, and the second shield comprises a ground plane.
15. (new) The converter according to claim 1, further comprising noise-shaping circuitry.
16. (new) The converter according to claim 1, further comprising analog-to-digital conversion circuitry.
17. (new) The converter according to claim 1, further comprising digital-to-analog conversion circuitry.
18. (new) The method according to claim 3, wherein shielding the input of the non-linear circuit comprises using a conduit, and wherein shielding the output of the non-linear circuit comprises using a conduit.
19. (new) The method according to claim 3, wherein shielding the input of the non-linear circuit comprises using a ground plane, and wherein shielding the output of the non-linear circuit comprises using a ground plane.

20. (new) The method according to claim 3, wherein the non-linear circuitry comprises switched-capacitor circuitry, noise-shaping converter circuitry, analog-to-digital converter circuitry, digital-to-analog converter circuitry, multiplier circuitry, or modulator circuitry.